

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

PAID-UP OIL AND GAS LEASE

(No Surface Use)

THIS LEASE AGREEMENT (this "Lease") is made as of the 13th day of July, 2008, between **Donald R. Smith and wife, Deborah D. Smith**, whose mailing address is **6713 Genoa Road, Fort Worth, TX 76116**, as Lessor, and Four Sevens Energy Company, L.L.C., whose address is 201 Main Street, Suite 1455, Fort Worth, Texas 76102, as Lessee.

1. **Leased Premises.** In consideration of a cash bonus in hand paid and the covenants herein contained, Lessor hereby grants, leases and lets exclusively to Lessee the following described land:

the real property described on Exhibit "A" attached hereto and made a part hereof

(hereinafter called "leased premises") in Tarrant County, Texas, (including any interests therein which Lessor may hereafter acquire by reversion, prescription or otherwise), for the purposes of exploring for, developing, producing and marketing oil and gas. For purposes of this Lease, "oil and gas" means oil, gas and other liquid and gaseous hydrocarbons and their elements produced through a well bore. "Oil" includes all condensate, distillate and other liquid and gaseous hydrocarbons produced through a well bore. "Gas" includes helium, carbon dioxide and other commercial gases, as well as hydrocarbon gases. Expressly excluded from this Lease are lignite, coal, sulfur and other like minerals. The leased premises shall include all strips and gores, streets, easements, highways and alleyways, adjacent thereto. Lessor agrees to execute, at Lessee's request, any additional or supplemental instruments reasonably necessary for a more complete or accurate description of the leased premises. For the purpose of determining the amount of shut-in royalties hereunder, the number of gross acres specified on Exhibit A shall be deemed correct, whether actually more or less.

2. **Term.** This Lease is a "paid-up" lease requiring no rentals. Subject to the other provisions contained herein, this Lease shall be for a primary term of thirty-six (36) months from the date hereof, and for as long thereafter as oil or gas or other substances covered hereby are produced in paying quantities from the leased premises or from land pooled therewith or this Lease is otherwise maintained in effect pursuant to the provisions hereof.

Lessor, for itself and its successors and assigns, hereby grants Lessee an option to extend the primary term of this Lease for one additional period of two (2) years from the end of the primary term by paying to Lessor, prior to the end of the primary term, a bonus consideration of Twenty thousand dollars (\$20,000) per net mineral acre as calculated to the center of adjoining streets, alleys, and easements, and with the extension to otherwise be on the other terms and conditions as agreed for the primary term of this Lease.

3. **Royalty.** Royalties on oil, gas and other substances produced and saved hereunder shall be paid by Lessee to Lessor as follows: (a) For oil and other liquid hydrocarbons separated at Lessee's separator facilities, the royalty shall be **twenty-five percent (25%)** of such production, to be delivered at Lessee's option to Lessor at the wellhead or to

Lessor's credit at the oil purchaser's transportation facilities, provided that Lessee shall have the continuing right to purchase such production at the wellhead market price then prevailing in the same field (or if there is no such price then prevailing in the same field, then in the nearest field in which there is such a prevailing price) for production of similar grade and gravity; (b) for gas (including casinghead gas) and all other substances covered hereby, the royalty shall be **twenty-five percent (25%)** of the proceeds realized by Lessee from the sale thereof, computed at the point of sale, less a proportionate part of ad valorem taxes and production, severance, or other excise taxes, provided that Lessee shall have the continuing right to purchase such production at the prevailing wellhead market price paid for production of similar quality in the same field (or if there is no such price then prevailing in the same field, then in the nearest field in which there is such a prevailing price) pursuant to comparable purchase contracts entered into on the same or nearest preceding date as the date on which Lessee commences its purchases hereunder.

It is agreed between the Lessor and Lessee, that, notwithstanding any language to the contrary, all oil, gas or other proceeds accruing to the Lessor under this Lease or by state law shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and marketing the oil, gas and other products produced hereunder to transform the product into marketable form; however, any such costs which result in enhancing the value of the marketable oil, gas or other products to receive a better price may be deducted from Lessor's share of production so long as they are based on Lessee's actual cost of such enhancements. However, in no event shall Lessor receive a price that is less than, or more than, the price received by Lessee.

Accounting and payment to Lessor of royalties from the production of oil and gas herein provided shall commence no later than One Hundred Twenty (120) days after the date of first production as pursuant to Section 91.402; Subchapter J. "Payment for Proceeds of Sale" of Texas Natural Resource Code, Oil and Gas. First production for a gas well shall be defined as the date of sale of gas and for an oil well the date oil is first produced, other than for testing purposes. Thereafter unless otherwise specifically provided herein, all accountings and payments of royalties shall be made on or before the last day of the second calendar month following the calendar month in which the production occurred. Unless otherwise herein expressly provided, any royalties or other payments provided for in this Lease which are suspended or not paid to Lessor within the time period specified therefore shall accrue interest at the rate of eighteen percent (18%) per annum (but in no event at a rate greater than the highest rate allowed by law), from the due date until paid. Acceptance by Lessor, its successors, agents or assigns of royalties which are past due shall not act as a waiver or estoppel of its right to receive or recover any and all interest due thereon under the provisions hereof, unless the written acceptance or acknowledgment by Lessor to Lessee expressly so provides. Any tender or payment to Lessor of a sum less than the total amount due to Lessor hereunder which is made or intended to be made as an offer of settlement or accord by or on behalf of Lessee, its agents, successors or assigns, must be accompanied by a notice clearly stating such intent in bold print.

4. **Shut-in Royalty Payments.** While there is a gas well on this Lease or on acreage pooled therewith capable of producing gas in paying quantities, but gas is not being sold, Lessee shall pay or tender in advance an annual shut-in royalty of \$70.00 dollars per net mineral acre. Payment with respect to a well will be due within 90 days after the well is shut-in. While shut-in royalty payments are timely and properly paid, this Lease will be held as a producing lease. Notwithstanding anything to the contrary herein, it is expressly understood and agreed that after the expiration of the primary term, Lessee shall not have the right to continue this Lease in force by payment of shut-in royalty for more than eighteen (18) consecutive months or for lesser periods which aggregate three (3) years. The obligation of Lessee to pay shut-in royalty is a condition and not a covenant. The payment or tender of royalty under this paragraph may be made by the check of Lessee mailed or delivered to the parties entitled thereto on or before the due date. All shut-in royalty payments under this Lease shall be paid or tendered to Lessor

or to Lessor's credit at lessor's address above or its successors, which shall be Lessor's depository agent for receiving payments regardless of changes in the ownership of said land. All payments or tenders may be made in currency, or by check or by draft and such payments or tenders to Lessor or to the depository by deposit in the US Mails in a stamped envelope addressed to the depository or to the Lessor at the last address known to Lessee shall constitute proper payment. If the depository should liquidate or be succeeded by another institution, or for any reason fail or refuse to accept payment hereunder, Lessor shall, at Lessee's request, deliver to Lessee a proper recordable instrument naming another institution as depository agent to receive payments.

5. Continuous Operations. If Lessee drills a well which is incapable of producing in paying quantities (hereinafter called "dry hole") on the leased premises or lands pooled therewith, or if all production (whether or not in paying quantities) permanently ceases from any cause, including a revision of unit boundaries pursuant to the provisions of Paragraph 6 or the action of any governmental authority, then in the event this Lease is not otherwise being maintained in force it shall nevertheless remain in force if Lessee commences operations for reworking an existing well or for drilling an additional well or for otherwise obtaining or restoring production on the leased premises or lands pooled therewith within 90 days after completion of operations on such dry hole or within 90 days after such cessation of all production. If at the end of the primary term, or at any time thereafter, this Lease is not otherwise being maintained in force but Lessee is then engaged in drilling, reworking or any other operations reasonably calculated to obtain or restore production therefrom, this Lease shall remain in force so long as any one or more of such operations are prosecuted with no cessation of more than 90 consecutive days, and if any such operations result in the production of oil or gas or other substances covered hereby, as long thereafter as there is production in paying quantities from the leased premises or lands pooled therewith. After completion of a well capable of producing in paying quantities hereunder, Lessee shall drill such additional wells on the leased premises or lands pooled therewith as a reasonably prudent operator would drill under the same or similar circumstances to (a) develop the leased premises as to formations then capable of producing in paying quantities on the leased premises or lands pooled therewith, or (b) to protect the leased premises from uncompensated drainage by any well or wells located on other lands not pooled therewith. There shall be no covenant to drill exploratory wells or any additional wells except as expressly provided herein.

6. Pooling. Lessee shall have the right but not the obligation to pool all of the leased premises or interest therein with any other lands or interests, as to any or all depths or zones, and as to any or all substances covered by this Lease, either before or after the commencement of production, whenever Lessee deems it necessary or proper to do so in order to prudently develop or operate the leased premises, whether or not similar pooling authority exists with respect to such other lands or interests; provided, however, that the entire leased premises covered by this Lease shall be included in any unit created pursuant to the pooling authority granted herein. The unit formed by such pooling for an oil well which is not a horizontal completion shall not exceed 80 acres plus a maximum acreage tolerance of 10%, and for a gas well or a horizontal completion shall not exceed 640 acres plus a maximum acreage tolerance of 10%; provided that a larger unit may be formed for an oil well or gas well or horizontal completion to conform to any well spacing or density pattern that may be prescribed or permitted by any governmental authority having jurisdiction to do so. For the purpose of the foregoing, the terms "oil well" and "gas well" shall have the meanings prescribed by applicable law or the appropriate governmental authority, or, if no definition is so prescribed, "oil well" means a well with an initial gas-oil ratio of less than 100,000 cubic feet per barrel and "gas well" means a well with an initial gas-oil ratio of 100,000 cubic feet or more per barrel, based on 24-hour production test conducted under normal producing conditions using standard lease separator facilities or equivalent testing equipment; and the term "horizontal completion" means an oil well in which the horizontal component of the gross completion interval in facilities or equivalent testing equipment; and the term "horizontal

completion" means a well in which the horizontal component of the gross completion interval in the reservoir exceeds the vertical component thereof. In exercising its pooling rights hereunder, within ninety (90) days of first production, Lessee shall file of record a written declaration describing the unit and stating the effective date of pooling, which may be retroactive to first production. Production, drilling or reworking operations anywhere on a unit which includes all or any part of the leased premises shall be treated as if it were production, drilling or reworking operations on the leased premises, except that the production on which Lessor's royalty is calculated shall be that proportion of the total unit production which the net acreage covered by this Lease and included in the unit bears to the total gross acreage in the unit. Pooling in one or more instances shall not exhaust Lessee's pooling rights hereunder, and Lessee shall have the recurring right but not the obligation to revise any unit formed hereunder by expansion or contraction or both, either before or after commencement of production, in order to conform to the well spacing or density pattern prescribed or permitted by the governmental authority having jurisdiction, or to conform to any productive acreage determination made by such governmental authority. In making such a revision, Lessee shall file of record a written declaration describing the revised unit and stating the effective date of revision. To the extent any portion of the leased premises is included in or excluded from the unit by virtue of such revision, the proportion of unit production on which royalties are payable hereunder shall thereafter be adjusted accordingly. In the absence of production in paying quantities from a unit, or upon permanent cessation thereof, Lessee may terminate the unit by filing of record a written declaration describing the unit and stating the date of termination. Pooling hereunder shall not constitute a cross-conveyance of interests.

7. Partial Interests. If Lessor owns less than the full mineral estate in all or any part of the leased premises, the royalties and shut-in royalties payable hereunder for any well or any part of the leased premises or lands pooled therewith shall be reduced to the proportion that Lessor's interest in such part of the leased premises bears to the full mineral estate in such part of the leased premises.

8. Assignment. The interest of either Lessor or Lessee hereunder may be assigned, devised or otherwise transferred in whole or in part, by area and/or by depth or zone, and the rights and obligations of the parties hereunder shall extend to their respective heirs, devisees, executors, administrators, successors and assigns. No change in Lessor's ownership shall have the effect of reducing the rights or enlarging the obligations of Lessee hereunder, and no change in ownership shall be binding on Lessee until 60 days after Lessee has been furnished the original or certified or duly authenticated copies of the documents establishing such change of ownership to the satisfaction of Lessee or until Lessor has satisfied the notification requirements contained in Lessee's usual form of division order. In the event of the death of any person entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to the credit of decedent or decedent's estate in the depository designated above. If at any time two or more persons are entitled to shut-in royalties hereunder, Lessee may pay or tender such shut-in royalties to such persons or to their credit in the depository, either jointly or separately in proportion to the interest which each owns. If Lessee transfers its interest hereunder in whole or in part Lessee shall be relieved of all obligations thereafter arising with respect to the transferred interest, and failure of the transferee to satisfy such obligations with respect to the transferred interest shall not affect the rights of Lessee with respect to any interest not so transferred. If Lessee transfers a full or undivided interest in all or any portion of the area covered by this Lease, the obligation to pay or tender shut-in royalties hereunder shall be divided between Lessee and the transferee in proportion to the net acreage interest in this Lease then held by each. Notwithstanding the foregoing provision, Lessee shall assign 100% of its interest in this lease as of the Effective Date to Chesapeake Exploration, LLC, an Oklahoma Limited Liability Company ("Chesapeake"), and Chesapeake will be bound by all of the terms, conditions and obligations of this Lease; such assignment shall take place within one (1) year of the

Effective Date of this Lease, or this Lease shall automatically terminate in its entirety and be of no further force or effect.

9. Release and Vertical Pugh Clause. Lessee may, at any time and from time to time, deliver to Lessor in recordable form or file of record a written release of this Lease as to a full or undivided interest in all or any portion of the area covered by this Lease or any depths or zones thereunder, and shall thereupon be relieved of all obligations thereafter arising with respect to the interest so released. If Lessee releases all or an undivided interest in less than all of the area hereby, Lessee's obligations to pay or tender shut-in royalties shall be proportionately reduced in accordance with the net acreage interest retained hereunder. In any event, upon termination of this Lease, Lessee, its successors or assigns shall deliver to Lessor a recordable release as to such portion or portions of this Lease which have been terminated under the terms of this Lease. Upon expiration of the primary term of this Lease, upon the expiration of any extension or renewal of the primary term, or after cessation of operations as provided herein, whichever occurs last, this Lease shall terminate as to all rights lying below 100 feet (100') below the stratigraphic equivalent of the base of the deepest producing formation on the leased premises or on lands pooled therewith.

10. Waiver of Surface Use. Notwithstanding anything to the contrary in this Lease, Lessee shall only develop the leased premises by pooling, as provided herein, or by directional or horizontal drilling commenced from a surface location on other lands. Lessee shall make all reasonable efforts to not use residential or neighborhood streets or thoroughfares in developing the leased premises, or any lands pooled therewith or otherwise. Lessee will make reasonable efforts to screen any drill sites being used to develop the leased premises or any property pooled therewith from public view during drilling operations and after drilling operations have been completed.

11. Noise. Noise levels associated with Lessee's operations related to the drilling, completion and reworking of wells shall be kept to a reasonable minimum, taking into consideration reasonably available equipment and technology in the oil and gas industry, the level and nature of development and surface use elsewhere in the vicinity of Lessee's drill sites and the fact Lessee's operations are being conducted in or near an urban residential area. If Lessee utilizes any non-electric-powered equipment in its operations, including but not limited to compression equipment, Lessee shall take reasonable steps to muffle the sound therefrom by installing a noise suppression muffler or like equipment.

12. No Warranty of Title. Lessor makes no warranty of any kind with respect to title to the surface or mineral estate in the leased premises or any portion of or interest therein. All warranties that might arise by common law or by statute, including but not limited to Section 5.023 of the Texas Property Code (or its successor), are excluded. By acceptance of this Lease, Lessee acknowledges that it has been given full opportunity to investigate and has conducted sufficient investigation to satisfy itself as to the title to the leased premises. Lessee assumes all risk of title failures.

13. Regulatory Requirements and Force Majeure. Lessee's obligations under this Lease, whether express or implied, shall be subject to all applicable laws, rules, regulations and orders of any governmental authority having jurisdiction including environmental regulations, setback requirements, restrictions on the drilling and production of wells, and the price of oil, gas and other substances covered hereby. To the extent any such laws, rules, regulations or orders are less restrictive than the terms of this Lease, this Lease shall control. When drilling, reworking, production, or other operations are prevented or delayed by such laws, rules, regulations or orders, or by inability to obtain necessary permits, equipment, services, material, water, electricity, fuel, access or easements, or by fire, flood, adverse weather conditions, war, sabotage, rebellion, insurrection, riot, strike or labor disputes, or by inability to obtain a satisfactory market for production or failure of purchasers or carriers to take or transport such production, or

by any other cause not reasonably within Lessee's control, this Lease shall not terminate because of such prevention or delay, and at Lessee's option, the period of such prevention or delay shall be added to the term hereof. Lessee shall not be liable for breach of any express or implied covenants of this Lease when drilling, production or other operations are so prevented, delay or interrupted.

14. Indemnity. Lessee hereby releases and discharges Lessor and the owner of the surface estate, along with their officers, employees, partners, agents, contractors, subcontractors, guests and invitees, and their respective heirs, successors and assigns (collectively the "Lessor Parties"), of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees and agents arising out of, incidental to or resulting from, the operations of or for Lessee on or under the leased premises or at the drill site or operations site or that may arise out of or be occasioned by lessee's breach of any of the terms or provisions of this Lease, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the Lessor Parties against any and all claims, liabilities, losses, damages, actions, property damage, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, statute or strict liability, including reasonable attorney fees and other legal expenses, including those related to environmental hazards on or under the leased premises or at the drill site or operations site or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's use of the surface or subsurface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Lease or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees and their respective successors and assigns. Each assignee of this Lease, or of an interest herein, agrees to be liable for, exonerate, indemnify defend and hold harmless the Lessor Parties in the same manner provided above in connection with the activities of Lessee, its officers, employees and agents as described above.

15. Venue. Venue for any dispute arising under this Lease shall be in Tarrant County, Texas, where all obligations are performable.

16. Miscellaneous. This Lease is entered into in the State of Texas and shall be construed, interpreted and enforced in accordance with the laws of the State of Texas without reference to choice-of-law rules. Should any of the provisions herein be determined to be invalid by a court of competent jurisdiction, it is agreed that this shall not affect the enforceability of any other provision herein and that the parties shall attempt in good faith to renegotiate that provision so determined to be invalid to effectuate the purpose and to conform to the law regarding such provision. The section titles appearing in this Lease are for convenience only and shall not by themselves determine the construction of this Lease. This Lease may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument. Singular and plural terms, as well as terms stated in the masculine, feminine or neuter gender, shall be read to include the other(s) as the context requires to effectuate the full purposes of this Lease.

17. Access to Information. Lessee shall keep complete and accurate records of all its operations relating to or affecting the leased premises, and the results thereof, including, but not limited to: all land surveys, title opinions and title curative material; all drilling, records; all production records showing the total gross production, the quantities saved, sold and used, the disposition thereof, and the sales prices or values thereof; all production sales contracts; and such other records and data as may be proper for the settlement of accounts between Lessor and Lessee or to determine the respective rights

and obligations of said parties hereunder. During the primary term of this lease and for as long as oil and gas is produced therefrom, and for a period of one (1) year thereafter, Lessee shall make all of such records and data available, upon written request and limited to an annual basis, to Lessor for examination in Lessee's office during normal business hours. All information provided by Lessee or obtained by Lessor according to this paragraph that Lessee identifies or designates as proprietary and confidential shall be deemed proprietary and confidential and during the primary term of this lease and for as long as oil and gas is produced therefrom, and for a period of one (1) year thereafter, all such information shall remain strictly confidential and Lessor shall not disclose such information to any third party (other than financial advisers, accountants and counsel of Lessor) without the prior written consent of Lessee; provided, however, the foregoing obligations of Lessor shall not apply to such portions of such information which (i) are currently possessed by or available to Lessor, (ii) are or become generally available to the public other than as a result of a disclosure by Lessor, (iii) come into the possession of Lessor from a source which is not prohibited from disclosing such information to Lessor by a legal, contractual or fiduciary obligation to Lessee, or any other person, or (iv) is required to be disclosed in order to enforce the terms of this lease or Lessee's obligations hereunder.

DISCLAIMER OF REPRESENTATIONS: Lessor acknowledges that oil and gas lease payments, in the form of rental, bonus and royalty, are market sensitive and may vary depending on multiple factors and that this Lease is the product of good faith negotiations. Lessor understands that these lease payments and terms are final and that Lessor entered into this Lease without duress or undue influence. Lessor recognizes that lease values could go up or down depending on market conditions. Lessor acknowledges that no representations or assurances were made in the negotiation of this Lease that Lessor would get the highest price or different terms depending on future market conditions. Neither party to this Lease will seek to alter the terms of this transaction based upon any differing terms which Lessee has or may negotiate with any other lessors/oil and gas owners.

IN WITNESS WHEREOF, this Lease is executed to be effective as of the date first written above, but upon execution shall be binding on the signatory and the signatory's heirs, devisees, executors, administrators, successors and assigns, whether or not this Lease has been executed by all parties hereinabove named as Lessor.

Donald R. Smith
Signature

DONALD R. SMITH
Printed Name

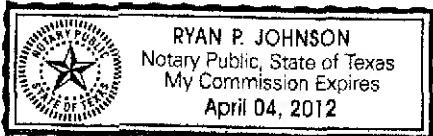
Deborah D Smith
Signature

DEBORAH D. SMITH
Printed Name

STATE OF TEXAS
§
COUNTY OF TARRANT
§

ACKNOWLEDGEMENT

This instrument was acknowledged before me on the 13th day of July,
2008, by Donald Z Smith, as Lessor(s).



Ryan Johnson
Notary

Ryan Johnson
Printed Name

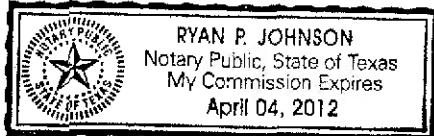
4/4/12
My Commission Expires

(seal)

STATE OF TEXAS
§
COUNTY OF TARRANT
§

ACKNOWLEDGEMENT

This instrument was acknowledged before me on the 13th day of July,
2008, by Debra D Smith, as Lessor(s).



Ryan Johnson
Notary

Ryan Johnson
Printed Name

4/4/12
My Commission Expires

(seal)

Exhibit "A"

Description of Property

Attached to and made part of that certain Paid Up Oil and Gas Lease dated the 13th day of July, 2008, between Donald R. Smith and wife, Deborah D. Smith, as Lessor(s), and Four Sevens Energy Co., L.L.C., as Lessee.

.350 acres of land, more or less, out of the P. Pate Survey, A-1202, Tarrant County, Texas, further described as follows:

Lot 19, Block 48, of Ridgmar, an addition to the City of Fort Worth, Tarrant County, Texas, according to the Plat thereof recorded in Volume 388-19, Page 32, Plat Records, Tarrant County, Texas.

Also commonly known as: 6713 Genoa Road, Fort Worth, Texas 76116.



CHESAPEAKE ENERGY CORP
301 COMMERCE ST STE 600

FT WORTH TX 76102

Submitter: CHESAPEAKE ENERGY CORPORATION

SUZANNE HENDERSON
TARRANT COUNTY CLERK
TARRANT COUNTY COURTHOUSE
100 WEST WEATHERFORD
FORT WORTH, TX 76196-0401

DO NOT DESTROY
WARNING - THIS IS PART OF THE OFFICIAL RECORD.

Filed For Registration: 08/13/2008 02:37 PM
Instrument #: D208317391
LSE 10 PGS \$48.00

By: _____



D208317391

ANY PROVISION WHICH RESTRICTS THE SALE, RENTAL OR USE
OF THE DESCRIBED REAL PROPERTY BECAUSE OF COLOR OR
RACE IS INVALID AND UNENFORCEABLE UNDER FEDERAL LAW.

Printed by: BD